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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Christian Prehofer

64923 (51969)

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EDWARDS ANGELL PALMER & DODGE LLP

P.O. BOX 55874

BOSTON, MA 02205

EXAMINER

WOO, KUO-KONG

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/569,309	Applicant(s) PREHOFER ET AL.	
	Examiner KUO WOO	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 February 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 64-83 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 64-83 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 February 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Receipt is acknowledged of paper submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file. This application is a 371 of PCT/EP2003/011820 on 10/24/2003. Claims to foreign priority EPO 03018616.7 filed on 08/19/2003.

Drawings

2. The drawings submitted on 02/21/08. These drawings are reviewed and accepted by the examiner.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 82 and 83 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim computer program product is drawn to functional descriptive material NOT claimed as residing on a computer readable medium. MPEP 2106.IV.B.1 (a) (Functional Descriptive Material) states:

“Data structures not claimed as embodied in a computer-readable medium are descriptive material per se and are not statutory because they are not capable of causing functional change in the computer.”

“Such claimed data structures do not define any structural or functional interrelationships between the data structure and other claimed aspects of the invention which permit the data structure’s functionality to be realized.”

Claims 82 and 83, while defining a computer program product, does not define a “computer-readable medium” and is thus non-statutory for that reasons. A computer

Art Unit: 2617

program can range from paper on which the program is written, to a program simply contemplated and memorized by a person. The examiner suggests amending the claim to embody the program on "computer-readable medium" in order to make the claim statutory.

"In contrast, a claimed computer-readable medium encoded with the data structure defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure's functionality to be realized, and is thus statutory." - MPEP 2106.IV.B.1 (a).

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 64, 66-75, 77-82 are rejected under 35 U.S.C. 102(e) as being anticipated by Sevanto et al. (US Patent No: 6,658,011 B1)

Regarding claim 64, "A gateway (GW) for forwarding transmission information (TI) between a first terminal node (CN) of a first network (IN) and a second terminal node RN1, MN) of an ad hoc network (AHN), comprising:

a) a transmission/reception unit (TRG) adapted to receive transmission information (TI, TI', TI'') from said first terminal node (CN) and to transmit said transmission information (TI, TI', TI'') to said second terminal node (RN1-RN4; MN)"

Sevanto discloses (Abstract, a method provides transmitting information related to the

Art Unit: 2617

use of the first device (transmission information) and a second device (Terminal node MN) coupled to a packet-switched data transmission network),wherein a telecommunication network exchange information through different wireless protocol and devices;

b) “an acknowledgment information detection unit (ACKM) adapted to detect the receipt of acknowledgment information from said second terminal node (MN) acknowledging that said second terminal station (MN) has received said transmission information” Sevanto discloses (Col. 6, lines 1-4, Fig 3. an example we will use a mobile-originated procedure for enabling the exchange of WAP-related messages between a MS and a GGSN/WAP-GW) and (Col.7, lines 29-34, After activating the service and possibly configuring some WAP-related parameters (e.g. according to the information delivered in the Protocol Configuration Options information element), the GGSN/WAP-GW sends at step 305 a PDP Context Activation Response message via the SGSN to the MS. The reception 306 of this message at the MS finalizes the context activation), wherein WAP information is exchanged between node and station. MS has received information and responded from GGSN;

c) “wherein said transmission/reception unit (TRG) comprises a first tunnel setup between said gateway (GW) and said second terminal node (MN)” Sevanto discloses (Col 7, lines 29-30, After activating the service and possibly configuring some WAP-related parameters and lines 36-40, After that, there is a logical tunnel in place between the MS and the GGSN/WAP-GW, where WAP-related messages can be delivered

Art Unit: 2617

transparently as illustrated by block 307), wherein logic tunnel is established between GW and MS (MN).

Regarding claim 66, "characterized by a transmission information characteristics determining unit (TIM) adapted to determine transmission characteristics (TCH) of the transmission of said transmission information (TI) to said second terminal node (MN)" Sevanto discloses (Col. 3 lines 39-43, According to the invention the WDP protocol entity will be placed on top of the OSP entity in the terminal, and on top of the OSP entity or a corresponding, mapped entity in the WAP gateway. Other protocol entities may take the role of adaptation layers there between if required) and (Col 7. lines 5-8, the PDP Configuration options can be used for informing the WAP-GW which of these the MS supports on top of OSP), wherein Gateway includes PDP (packet at protocol) and OSP (octet stream protocol) which carry "TIM" and "TCH" between MN and CN. Regarding claim 67, "(TIM) is adapted to determine as second terminal node (MN), and a delay time of the packet transmission" Sevanto discloses (¶ 09, Activate PDP Context Request message, but it is possible for the GGSN/WAP-GW to indicate to the MS through a simple signaling message that there is WAP-related information waiting for delivery, so that it is left to the MS's discretion to choose the moment for activating the PDP Context by commencing the procedures illustrated in FIG. 3.), wherein as part of QoS control, MS controls the delivery of message from GW if (delay time of package transmission) is necessary.

Regarding claim 68, characterized in that said second ad hoc network (AHN) is a packet switched network (AHN), said transmission information (TI) comprises one or

Art Unit: 2617

more transmission packets (IP1), and said acknowledgement information (ACTAN) comprises one or more acknowledgment packets (ACK1)” Sevanto discloses (Abstract, A method is provided for transmitting information related to the use of the Wireless Application Protocol between a first device and a second device coupled to a packet-switched data transmission network) and (Col. 7, lines 32-35, the GGSN/WAP-GW sends at step 305 a PDP Context Activation Response message via the SGSN to the MS. The reception 306 of this message at the MS finalizes the context activation), wherein content activation response message is transmitted from GW to MS.

Regarding claim 69, “characterized by an acknowledgment request unit (SOL) adapted to transmit to said second terminal node (MN) an acknowledgment request packet including a predetermined sequence number (SN) of a transmission packet” Sevanto discloses (Col 6, lines 10-21, these parameters are schematically illustrated in FIG. 4 and they have the following meaning: The Network Service Access Point identifier or NSAPI 401 is selected by the MS. NSAPI identifies the PDP context to be activated within the GPRS/UMTS network. For identifying the user the message comprises also the TLLI (Temporary Logical Link Identity) and IMSI (International Mobile Subscriber Identity) information elements (not shown in FIG. 4). The NSAPI may be understood as a handle for the PDP Context within the MS) and (Col. 6, lines 59-61, Service precedence is most advantageously high if it indicates dropping precedence which results in few packet losses) ,wherein NSAPI serves as sequence number indicator to track if package is lost or delivered in predetermined sequence.

Regarding claim 70 is drawn to the apparatus corresponding to the method of using same as claimed in claims 64. Therefore apparatus claim 70 corresponds to claim 64, and is rejected for the obviousness as used above.

Regarding claim 71, is drawn to the method used by the corresponding apparatus claim 64 and are rejected for the same reasons.

Regarding claim 72, is drawn to the method used by the corresponding apparatus claim 68 and is rejected for the same reasons.

Regarding claim 73, "characterized by a packet retransmission request unit (ARQ) adapted to transmit to said gateway (GW)" Sevanto discloses (Col 9, lines 32-34, FIG. 7 summarizes the functions of the WDP, OSP and lower protocol layers in all such protocol stacks where the WDP and OSP layers are located) and (lines 39-50, The OSP layer 702 is in general capable of indicating to the lower layers the need for setting up PDP Contexts, and especially capable of indicating with a setup request primitive 704 that a PDP Context of the OSP:WAP type should be requested. This second primitive 704 should contain at least the PDP Type, APN, QoS Requested and PDP Configuration Options information elements referred to above. The lower layers are in general capable of informing the OSP layer 702 about the completed activation of the PDP Context with a third primitive 705, and the OSP layer 702 is in turn capable of forwarding the same information to the WDP layer 701 in a fourth primitive 706), wherein from set up 703 and 704 to response 705 and 706 retransmitted from WDP (GW) unit.

Regarding claims 74, 75 and 80, method claims are drawn to the method of using the corresponding apparatus claimed in claim 64. Therefore method claims 74, 75

Art Unit: 2617

and 80 correspond to apparatus claims 64 are rejected for the same reasons of anticipation as used above.

Regarding claim 77, method claim is drawn to the method of using the corresponding apparatus claimed in claim 66. Therefore method claim 77 corresponds to apparatus claims 66 is rejected for the same reasons of anticipation as used above.

Regarding claim 78, method claim is drawn to the method of using the corresponding apparatus claimed in claim 67. Therefore method claim 78 corresponds to apparatus claims 67 is rejected for the same reasons of anticipation as used above.

Regarding claim 79, method claim is drawn to the method of using the corresponding apparatus claimed in claim 69. Therefore method claim 79 corresponds to apparatus claims 69 is rejected for the same reasons of anticipation as used above.

Regarding claim 81, method claim is drawn to the method of using the corresponding apparatus claimed in claim 68. Therefore method claim 81 corresponds to apparatus claims 68 is rejected for the same reasons of anticipation as used above.

Regarding claim 82, “a computer program product, comprising code sections for respectively carrying out the functions of the gateway (GW) in accordance with claim 74” Sevanto discloses (Col. 9, lines 27-31, The GGSN/WAP-GW protocol stack seen in greater detail in FIG. 2 is implemented within the control block 623 by programming the corresponding operations into a memory in the form of machine-readable processing instructions), wherein computer program by means of machine-readable processing to carry out the function of GW.

Art Unit: 2617

Claim Rejections - 35 USC § 103

6 The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 65, 76 and 83 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sevanto as applied to claim 64 above in view of Skog et al. (US Patent Application No: 2001/0028636 A1).

Regarding claim 65, Sevanto teaches “ said transmission information (TI) to said second terminal node (MN) if said acknowledgment information detection unit (ACKM) detects the receipt of acknowledgment information (ACTAN) for the transmission of said transmission information (TI) to said second terminal station (MN)”. However, Sevanto does not explicitly disclose “characterized by an accounting unit (ACC') adapted to determine charging information (CH) for the transmission”.

In an analogous art: Skog discloses (§ 109, the client will send that to the RADIUS Accounting server, which will send back an acknowledgment that the packet has been received), wherein accounting information in Gateway unit is transmitting between MN and server.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use Sevanto teaching in combination of Skog provides other types of information can also be transmitted, e.g., by using RADIUS Accounting

Art Unit: 2617

for billing or personalization procedures. (See ¶ 109) .Rationales for arriving at a conclusion of obviousness suggested by the Supreme Court's decision in KSR includes: Combine prior art elements according to known method to yield predictable result.

Regarding claim 76, method claim is drawn to the method of using the corresponding apparatus claimed in claim 65. Therefore method claim 76 corresponds to apparatus claims 65 is rejected for the same reasons of anticipation as used above.

Regarding claim 83, Sevanto teaches "said transmission information (TI) to said second terminal node (MN). However, Sevanto does not explicitly disclose "a computer program product, comprising code sections for respectively carrying out the functions of the terminal node (RN1-RN4; MN) in accordance with claim 75".

In an analogous art, Skog discloses (¶ 18, Referring now to FIG. 2, there is illustrated a block diagram of a system which utilizes radius accounting messages as a manner for mapping IP addresses to an MSISDN number) and (The system includes a mobile terminal 45 which may comprise a mobile telephone, portable computer, personal data assistant or any other mobile electronic device capable of communicating with a MSC/VLR 50 via a wireless radio network 55) and (¶ 18, While the following description of mapping an IP address to an MSISDN number is done with respect to an authentication process, the system and method may also be used with a billing process, personalization process, etc) wherein computer carry out billing and authentication process.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use Sevanto teaching in combination of Skog provides

Art Unit: 2617

other types of information can also be transmitted, e.g., by using RADIUS Accounting for billing or personalization procedures. (See ¶ 109) .Rationales for arriving at a conclusion of obviousness suggested by the Supreme Court's decision in KSR includes: Combine prior art elements according to known method to yield predictable result.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- US Patent Application No: 2002/0049850 A1 to Fiori et al. discloses a similar invention as recite in claim 64.
- US Patent Application NO: 2002/0186680 A1 to Takagi et al. discloses a similar invention as recite in claim 64.
- US Patent No: 7,010,590 B1 to Munshi discloses a similar invention as recite in claim 65.
- US Patent No: 6,282,172 to Robles et al discloses a similar invention as recite in claim 68.
- US Patent No: 7,277,416 B1 to Chang et al discloses a similar invention as recite in claim 65.

Art Unit: 2617

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KUO WOO whose telephone number is (571)270-7266. The examiner can normally be reached on Monday through Friday 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester Kincaid can be reached on 571-272-7922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/KUO WOO/
Examiner, Art Unit 2617

/Lester Kincaid/
Supervisory Patent Examiner, Art Unit 2617